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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,319	06/21/2005	Hee-Boong Park	DSP-PT010	1309
3624 7590 06/09/2009 VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103				
EXAMINER LAMPRECHT, JOEL				
ART UNIT		PAPER NUMBER		
3737				
MAIL DATE		DELIVERY MODE		
06/09/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/540,319

**Applicant(s)**

PARK, HEE-BOONG

**Examiner**

JOEL M. LAMPRECHT

**Art Unit**

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-16 rejected under 35 U.S.C. 103(a) as being unpatentable over  
Anderson et al (US 2006/0241423 A1) in view of Shmulewitz et al (US 6,027,457 A)

Anderson et al disclose an apparatus for ultrasound examination of a deformable object comprising a support frame (Figure 1, element 108 [0028-0030]), movable means with a flat surface installed in the frame to move forward and backward longitudinally in the frame [0030, 0035, 36], a driving means for moving the movable means, an ultrasonic probe disposed to extend widthwise of the movable means (Fig 2, 4b, [0040-0044]), an ultrasonic wave transmission/reception surface (Fig 4a/b) of the ultrasonic probe flush with upper surface and fixed to the movable means (Fig 4a/b), the moveable means comprising a plurality of links having a flat surface (Fig 4a/b Element 402), and a pair of rollers and supports for the ends of the links, where driving means is supplied and the ultrasonic probe is fixed between two of the links [0039-0042] (Fig 4a/b). The probe is a linear array transducer [0041], the height of the frame can be adjusted (Fig 1), and there also exists pressing means to the height adjusting means to press the deformable object on the flat surface of the movable means [0037-0040]. Also, a stand exists for supporting the height adjusting means (Fig 1 Element 102, Fig 1

Element 108 [0030]), and a rotational shaft is supplied [0030-0033], having one end supported rotably by the stand and the other end fixed to a side surface of the height adjusting means [0031]. Anderson et al also disclose a frequency based phased array scanning probe [0041-0043], a height adjusting means for supporting the frame and pressing means fixed to a height adjusting (Figure 1) means for pressing the deformable object placed on the flat surface of the movable means (Figure 2,3), and a stand for supporting the height adjusting means, along with rotational shaft having one end supported rotably by the stand and the other end fixed to the height-adjusting means (Claim 3, [0031-0032]) which is opposite to a side surface of the height adjusting means with the frame installed thereon.

Anderson et al do not disclose that the ultrasonic transducer is attached to a flat surface of a movable support, enabling them to move together. Attention is then directed to the secondary reference by Shmulewitz et al which discloses an ultrasonic transducer probe which is attached to a flat-movable support surface of the device for the purpose of allowing for mobile examination of a deformable region of a patient's body (Figure 1, Col 2 Line 60- Col 3 Line 40). It would have been obvious to one of ordinary skill in the art at the time of the invention to have incorporated the support-transducer assembly of Shmulewitz et al with the examination methods and device of Anderson et al for the purpose of allowing for freely adjustable movement of the ultrasound transducer in relation to the target region for examination.

***Response to Arguments***

Applicant's arguments filed 3/19/09 have been fully considered but they are not persuasive. Regarding the argument that Shmulewitz does not disclose what is currently recited in Applicant's claim 1, namely the lack of a flat surface which is movable and capable of having an object placed on top of the surface, the movable support being installed in the frame to move forward and rearward and a probe which is flush with an upper surface of the flat surface and fixed to the movable support so they move together, Examiner respectfully disagrees. As noted by Examiner, Shmulewitz et al is being relied upon to provide and teach a movable support, with an ultrasound probe attached to the flat surface of the support so that the surface and probe move together, where the surface of the probe is flush with the flat upper surface of the support. Additionally, the object has to be capable of being placed on top of the flat surface. As attention was directed to figure 1 of Shmulewitz et al, Examiner respectfully notes that the object being examined is placed on top (over, above) the support which the transducer is attached to (22, 20) where the transducer is flush with the top of the gantry and in sonolucent contact with a window, which is about 25 micron in thickness. The probe, 20 moves together with 22, and again, the object being examined is placed on top of this region to be able to be imaged.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOEL M. LAMPRECHT whose telephone number is (571)272-3250. The examiner can normally be reached on Monday-Friday 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571)272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JML

/BRIAN CASLER/  
Supervisory Patent Examiner, Art Unit 3737